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ABSTRACT

The federal government's experience with adult retraining programs began in 1962 with the passage of the Manpower Development and Training Act and creation of the Trade Adjustment Assistance program. When the 1973 Comprehensive Employment and Training Act expired in 1982, Congress enacted the Job Training Partnership Act. During the 1980s, states developed programs to fill the market gap between perceived need and federally funded services. Evaluation evidence was available for five government-sponsored programs targeted to displaced workers and one program for disadvantaged workers that distinguished the impact of classroom training from that of on-the-job training. Private sector employers made more substantial investments in training programs as shown by private sector retraining programs primarily directed to workers at risk of being displaced from their jobs. Evidence provided by the displaced worker demonstration projects indicated clearly that job search assistance speeded up the reemployment of displaced workers. Results were less favorable for classroom training in vocational skills. Reasonably favorable results for classroom training were obtained. OJT had a more immediate and sustained positive impact on the earnings of both adult women and men than classroom training. Women were usually found to benefit from retraining and other reemployment services at least to the same extent as men. (Appendixes include 17 endnotes and 5 tables. Contains 21 references.) (YLB)

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Training Policy Studies

Retraining displaced workers: The US experience

by Duane E. Leigh

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by Duane Leigh

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Introduction

During each year of the 1980s, an average of about two million full-time American workers (or about two percent of the civilian labour force) were displaced from their jobs because their employers either went out of business or laid them off for some other reason and had not recalled them over a year later.[1]

The term "displaced" is applied to these unemployed workers because they are unlikely to be recalled to their old jobs or even to jobs in their old industries. The annual number of displaced workers during the 1980s varied with the overall state of the economy, but even during the relatively strong labour market existing in 1988, 1.5 million workers were unemployed due to displacement. Some of these workers found new jobs easily at wages comparable to their pre-layoff earnings. But many others experienced long spells of unemployment, exhaustion of Unemployment Insurance (UI) benefits, and substantially lower wages in their new jobs.

Governments of nearly all industrial nations, including the United States, provide displaced workers with adjustment assistance services intended to facilitate labour mobility from declining to growing industries. These adjustment assistance services typically include retraining in job skills and job search assistance. However, recent events have dramatically heightened the attention paid by U.S. policymakers to the adjustment assistance needs of displaced workers. These events include:

- *The job losses in the defense sector--both federal civilian and military personnel and private sector defense industry workers--associated with large-scale cutbacks in the defense budget.*
- *Concern that implementation of the North American Free Trade Agreement (NAFTA) would cause U.S. producers to shift operations to other countries thereby eliminating domestic jobs.*
- *The perception that corporate restructuring in the 1990-91 recession and the years immediately following is, for the first time, substantially increasing joblessness among white-collar as well as blue-collar workers (see, for example, Karr 1991).*

The objective of this paper is to evaluate the U.S. experience with retraining displaced workers. The paper is organized as follows. Section I provides an overview of retraining programmes funded by the federal government, with brief attention also given to state-funded programmes. One of the strengths of the federal government's approach to retraining is its commitment to programme evaluation. Section II therefore summarizes evaluation results obtained for a number of government-sponsored demonstration projects. Section III supplements the formal evaluation evidence with a discussion of the private sector's role (often in cooperation with labour unions) in worker retraining. Some lessons from the U.S. experience are drawn in Section IV.

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I. An overview of government programmes

Displaced American workers are eligible for a universal programme that provides income-maintenance benefits to the involuntarily unemployed and also for a variety of smaller programmes designed specifically to meet the adjustment assistance needs of displaced adults. The universal programme is the federal/state UI system mandated initially by the Social Security Act of 1935. Unemployed workers who satisfy eligibility conditions specified in terms of prior work attachment and reason for separation may receive weekly cash benefits for up to 26 weeks in most states. As of 1992, extended benefits for workers who have exhausted their regular UI entitlement are available for up to 20 or 26 additional weeks depending on the unemployment rate in their state. Job-matching services are provided by the state-operated Employment Service (ES). An unemployed worker must register with a local ES office in order to demonstrate his or her availability for employment, which is a criterion for receipt of UI benefits.

The federal government's experience with adult retraining programmes dates back to 1962 with the passage of the Manpower Development and Training Act (MDTA). MDTA represented the response of Congress to rising national unemployment coupled with growing concern over the effects of automation and new technology on the employment options of mid-career adult workers. By the mid-1960s, however, an improved labour market and lessened concern over automation led to a shift in interest and funding away from the employment problems of displaced workers and toward the employability of economically disadvantaged young people and adults.[2] In addition to MDTA, the other major federal programme specifically intended to assist displaced workers is the Trade Adjustment Assistance (TAA) programme. Also created in 1962, TAA provides income support and associated reemployment services to workers who lost their jobs as a consequence of trade agreement concessions. Legislation passed in 1974 removed the linkage between tariff reductions and job loss by making workers eligible for adjustment assistance if expanding trade alone contributed importantly to layoffs.[3]

In 1973, Congress created the Comprehensive Employment and Training Act (CETA) which consolidated nine earlier programmes including MDTA. Two distinct types of programmes were funded under CETA. Title I provided disadvantaged workers with a programme mix including classroom training, on-the-job training, and public sector work experience. In contrast, Titles II and VI offered public service employment (PSE) to workers who had recently lost jobs in high-unemployment geographic areas. As unemployment rose during the 1970s, CETA expenditures shifted away from Title I training programmes toward the provision of PSE jobs offering little or no formal training.

The CETA programme expired in 1982 with the national economy mired in the trough of the deepest recession since the 1930s. Once again, displacement from their jobs of experienced adult workers became an important national issue. Rather than renewing CETA with its widely-criticized emphasis on PSE, Congress enacted a broad new programme -the Job Training Partnership Act (JTPA)- intended to retrain and place workers in private sector jobs. Overall responsibility for administering the programme is given to state governors, who then delegate authority to local organizations to establish programmes tailored to meet the needs of employers and workers in local labour markets. The federal government monitors the performance of local site operators by a set of enrollment requirements and performance standards.

Title III of JTPA relates specifically to the adjustment assistance needs of displaced workers.[4] Services provided include skills training, job placement, worker relocation assistance, and support services such as child care and transportation while in training. However, limited funding resulted in the finding by the U.S. General Accounting Office (1987) that up to 30 June, 1986, at most seven percent of eligible workers received JTPA Title III programme services. Moreover, most Title III participants received relatively inexpensive job placement assistance rather than more intensive and expensive classroom skill training and on-the-job training.

In 1986, a task force appointed by the U.S. Secretary of Labor issued a report recommending the development at the state level of the capacity to respond quickly to plant closings and mass layoffs with the coordinated delivery of adjustment assistance services offered on-site to the displaced (see U.S. Department of Labor 1986).[5] Acting on the recommendations of the task force, the Economic Dislocation and Worker Adjustment Assistance (EDWAA) act of 1988 amended Title III of JTPA to require states to develop displaced worker units with the ability to react to major layoffs and plant closures with on-site offers of job search assistance and retraining. Funding for displaced worker programmes increased sharply from just $200 million in 1987 to about $517 million annually in 1991-93 (see Ross and Smith 1993: 31). A second piece of legislation passed in 1988 -the Omnibus Trade and Competitiveness Act - extended the authorization of TAA and made retraining an entitlement to eligible workers as well as a requirement for receiving income-maintenance benefits.[6] The TAA programme now essentially extends the duration of UI benefits to up to one and a-half years for eligible workers willing to participate in retraining. Bednarzik (1993) estimates for the 1982-87 period that among manufacturing industries deemed import sensitive, only about nine percent of the long-term unemployed were certified for TAA benefits. Expenditures on TAA benefits were $116 million in 1991, which is down substantially from about $1.5 billion annually in 1980 and 1981.

The small fraction of displaced workers actually assisted by JTPA Title III and TAA programmes during the 1980s suggested an important gap between perceived need and available federally-funded services. Virtually all of the states developed programmes attempting to fill this market niche. As discussed by Leigh (1989), however, state programmes differ from the federal programmes considered in two key respects. First, state programmes are not exclusively targeted to specific groups such as displaced or disadvantaged workers. Indeed, retraining services are often made available to currently employed workers in order to avoid layoffs and plant closures. Second, training programmes are usually tailored to meet the needs of individual employers, who, in turn, commit themselves to hiring programme graduates. That is, retraining is viewed as an economic development tool in addition to its traditional supply-side role of raising the level of workers' skills to enable them to compete for existing jobs.

II. Evaluation evidence

Compared to the stable and comprehensive institutional structures in Europe which cater for employment and training issues, Haveman and Saks (1985: 36) characterize the U.S. as lurching from one direction to another, developing some high-quality but many low-quality programmes. At the same time, the U.S. clearly leads the world in its willingness to devote substantial resources to programme evaluation. This section begins with an examination of the results of four major displaced worker demonstration projects funded by the U.S. Department of Labor (USDOL) during the 1980s. Recent evaluation evidence for the TAA and JTPA Title II-A programmes is then discussed.

A. The Displaced Worker Demonstration Projects

Because many displaced workers failed to satisfy the income test required for CETA eligibility, experience gained from CETA programmes was of limited usefulness in shaping the direction of new Title III JTPA programmes. Rising unemployment and an increasing number of plant closures in the early 1980s led the USDOL to fund a series of demonstration projects intended to test the effectiveness of alternative reemployment services in placing displaced workers in private sector jobs. In chronological order, these projects are (1) the Downriver programme, (2) the Buffalo programme of the Dislocated Worker Demonstration Projects,[7] (3) the Texas Worker Adjustment Demonstration (WAD) projects, and (4) the New Jersey UI Reemployment Demonstration Project.

B. Project characteristics

Table 1 furnishes an overview of some of the main features of the four demonstration projects.[8] One common element is the type of reemployment services provided. As the table indicates, the demonstrations supplied a mix of services including job search assistance (JSA), classroom training (CT), and on-the-job training (OJT). JSA services include initial orientation and assessment sessions, a job search workshop, and job development and referral services. The New Jersey UI Demonstration added to this mix a cash bonus for early reemployment.

An important difference between the projects is the approach programme designers followed in distinguishing displaced workers from other unemployed workers. In the Downriver and Buffalo projects workers displaced from their jobs by large layoffs in local auto and steel plants were targetted for programme eligibility. Displaced workers included in these two demonstrations were male blue-collar workers with lengthy job tenure who enjoyed high wages prior to being laid off. Programme services were provided promptly after plant closings to Downriver participants while, in Buffalo, there was a lengthy period of post-layoff unemployment prior to programme participation.

Rather than targeting services to workers displaced from their jobs in particular mass layoffs, the Texas WAD and New Jersey UI projects identified displaced workers by their eligibility for an ongoing adjustment assistance programme. The Texas WAD project served workers eligible for JTPA Title III programmes, while the New Jersey project was targeted to UI claimants over 25 years old who had at least three years of tenure with their pre-layoff employer and who could not provide a date at

which they expected to be recalled.[9] Two of the six WAD projects operated between 1983 and 1985 are available for evaluation, namely in El Paso and in Houston. As noted in the table, WAD programme services were provided to groups of displaced workers other than the mostly white male steel and auto workers targeted for assistance in the Downriver and Buffalo projects. The Houston project also served white males; but sizable groups of blacks, Hispanics, and Asians are represented among sample members. Over 90 percent of the workers sampled in El Paso are Hispanics, with about equal numbers of men and women. Turning to the New Jersey project, workers laid off from jobs in the trade and services industries, as well as in manufacturing, are included among UI claimants who met the eligibility conditions. Men and women are about equally represented in the eligible population, which also includes sizable proportions of blacks and Hispanics and workers aged 55 and older.

C. Results

As indicated in Table 2, the evaluation design differs sharply between the Downriver and Buffalo projects and the Texas WAD and New Jersey projects. The two earlier projects use a treatment group/comparison group design, where the two groups of laidoff workers are drawn from different plants. In contrast, the two later programmes implemented a truly experimental design in which eligible workers were randomly assigned to treatment and control groups.

Beginning with the Downriver project, eligible displaced workers who opted to participate in the programme initially received JSA services followed, for those judged likely to benefit, by some form of retraining (typically CT). Net earnings estimates range up to $122 per week, but the most striking aspect of the estimates presented by Abt Associates is their variability depending on the phase of the programme and on the plants from which treatment and comparison group members were selected. The incremental effect of classroom training above that of JSA is not reported, but Kulik, Smith, and Stromsdorfer (1984: 91-92) conclude that CT did not significantly improve participants' post-programme reemployment rates.

An interesting aspect of the Downriver programme is the systematic approach taken by programme designers in selecting classroom training curricula. Downriver staff members first attempted to identify occupations for which demand was expected to grow in the local labour market. This task was accomplished by reviewing economic forecasts and studies conducted by local universities, studying trade journals, and analyzing labour market data collected by the Michigan Employment Security commission. Next, the actual demand for labour in the occupations that survived this scrutiny was verified through interviews with local employers and representatives of trade associations. It is important to emphasize that Downriver officials sought to retrain workers for occupations for which there was projected to be sufficient demand on the part of a number of employers, so that participants' reemployment opportunities were not tied to the fortunes of a single firm. For the most part, the training curricula selected provided classroom instruction in blue-collar trades. In contrast, as noted in Section II, state retraining programmes typically follow the opposite approach of supplying customized training tailored to meet the specific needs of an individual employer.

A noteworthy feature of the Buffalo project is the relatively large percentage of on-the-job training slots provided, and programme participants were channeled into either classroom training or OJT positions after receiving JSA services. Table 2 displays programme effects on weekly earnings for the project's "target-plant sample," which is argued to be more reliable than the nontarget-plant sample because individuals offered programme services were a random sample of workers from the six area plants designated as target plants.[10] JSA-only services are found to have a very large impact on average weekly earnings measured over the first six post-

programme months. At the same time, there is little evidence of an incremental effect above that of JSA for either classroom or on-the-job training. Note also that the cost per participant for the JSA/CT and JSA/OJT treatments is more than three times that of JSA-only. It is clear that JSA is the only potentially cost effective treatment of those evaluated.

The experimental design of the Texas WAD projects randomly assigned eligible workers to either of two treatment groups or to a control group. The first treatment group received JSA services only (referred to as Tier I). Members of the second treatment group received JSA followed, if necessary, by more expensive classroom or on-the-job training (the Tier I/II sequence). Judging from Table 2, only for women in El Paso is there evidence that the Tier I/II WAD programme had a permanent effect in increasing earnings and reducing UI benefits. For these women, the programme's effect on earnings at the end of the first year slightly exceeds programme costs. WAD also reduced UI benefits by an average of $227 per participant measured over a 30-week period.

For a combined sample of men from both El Paso and Houston, quarter-by-quarter earnings estimates reported by Bloom (1990: 163) indicate that WAD participants were reemployed sooner than would have otherwise been the case. But ultimately, as seen in Table 2, the employment opportunities of male participants located at both sites were no better than for members of the control group. The Houston programme also allows the differential effect of Tier I/II versus Tier I services to be estimated for males. Despite the higher costs of Tier II services (which were almost exclusively classroom training), the evidence suggests that essentially no additional gains accrued from adding Tier II services to job search assistance.

The selection of classroom training curricula was carried out much less systematically in the Buffalo and Texas WAD projects than in the Downriver programme. Corson, Maynard, and Wichita (1984: 75-77) point out in their overview report on all six displaced worker demonstration sites (including Buffalo) that the one-year duration of the project severely limited both the careful selection of high-growth occupations and the necessary testing and assessment required to insure that participants possessed the motivation and academic skills to benefit from formal classroom training. In general, CT was restricted to those occupations and training deliverers amenable to short-duration, high-intensity courses developed at short notice. Similarly, Bloom (1990: 139) points out that the disappointing results obtained for Texas WAD Tier II services do not necessarily demonstrate that supplementing JSA with occupational training cannot be an effective adjustment assistance strategy. Rather, he suggests that the blue-collar orientation of Tier II training curricula available in the local community college was not well matched to the backgrounds and interests of the mostly white-collar participants in the Houston WAD project.

In the New Jersey UI Demonstration, all eligible claimants assigned to the three treatment groups received JSA services followed by a counseling/ assessment interview. Claimants in the JSA-only group were then free to begin their job search. Claimants in the JSA/retraining group were offered the opportunity to enroll in a CT or OJT programme. Acceptable CT programmes--which were offered by a wide range of public and private training providers--were subject to the restrictions that their expected duration not exceed six months and that remedial education be offered only if necessary to enable claimants to progress to vocational training courses. Finally, claimants in the JSA/reemployment bonus group were informed of the specifics of the bonus programme and turned lose to begin job search.[11]

Corson et al. (1989) present quarterly net impact estimates of treatment effects for the first year following the date of filing the initial UI claim. Table 2 indicates that by the second quarter after filing, participants offered the JSA-only and JSA/reemployment bonus treatments enjoyed earnings that were significantly higher than earnings measured for the control

group. By the fourth quarter, however, the earnings effect of both treatments had tailed off to essentially zero. Looking at UI benefits, the difference between the JSA-only and JSA/reemployment bonus estimates is large and statistically significant indicating a sizable incremental effect of the bonus in speeding up reemployment. For JSA plus skill training, nevertheless, there is no evidence of either a permanent increase in earnings or expedited reemployment. (Estimated net effects on earnings are even smaller in quarters three and four.) The authors caution that this conclusion may be misleading because of the low take-up rate (15 percent) among programme participants offered JSA/training. That is, any positive effect of training for claimants who actually received training services would be substantially diluted because the vast majority of participants in this treatment group chose not to engage in a training programme.

The follow-up study of the New Jersey programme by Anderson, Corson, and Decker (1991) is instructive because of its longer post-programme observation period and more detailed look at the JSA/training treatment, including separate net impact estimates for CT and OJT. Focusing only on claimants who actually participated in a skill training programme (as opposed to the random sample of all claimants offered the skill training treatment), classroom training is seen in Table 3 to significantly reduce earnings in the initial two quarters. This result is expected since training is likely to be ongoing during these quarters. But in quarters four through ten, CT increases earnings by as much as $582 per quarter relative to the earnings of claimants in the JSA-only treatment. Even larger and highly significant incremental effects are observed for OJT trainees. The authors explain that the primary reason for these exceptionally large OJT estimates is that by the third quarter after the claim date, OJT trainees were employed for almost 11 of 13 weeks in that quarter as compared to less than seven weeks of employment for JSA-only claimants. It must also be noted, in addition, that only 45 individuals actually received OJT services.

These results for skill training are clearly much more favorable than the evidence presented for the other three demonstration projects. Nevertheless, Anderson, Corson, and Decker (1991: 37, 51) point out two reasons for caution in basing policy on their results. First, since claimants receiving training are self-selected, the evidence cannot be used to argue that training will increase earnings for a randomly chosen group of UI claimants. Second, evidence obtained for subgroups of claimants indicates that JSA/training has the largest impact for the same subgroups (such as high school graduates) that are affected to the greatest extent by the JSA-only treatment. That is, retraining has a larger impact for claimants who already possessed relatively marketable skills than for claimants who were less market ready. This reason for caution is not particularly surprising since the limited-duration, relatively low-cost classroom training courses provided in New Jersey were designed to upgrade claimants' existing skills rather than to provide training in a totally new occupation (see Corson et al. 1989: 109-11). An example of skill upgrading cited in the evaluation report is that an individual with accounting skills might be trained to use a spreadsheet package on a personal computer.

D. Evaluation of the TAA Programme

In this context, results obtained in a major USDOL study of the TAA programme are especially relevant since TAA funds longer-term retraining intended to equip displaced workers to enter a new occupation or industry. TAA participants also clearly exhibit the characteristics associated with displaced workers; namely, they are in most cases permanently separated from their pre-layoff employers, typically because of a plant closing.

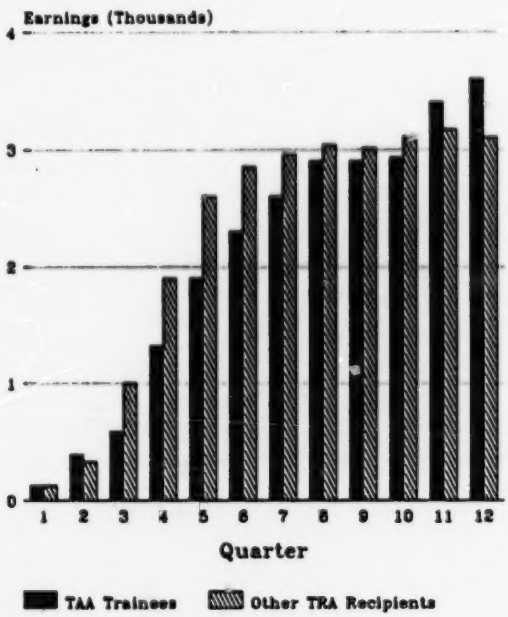
Drawing cases from ten states, the TAA evaluation study by Corson et al. (1993) is based on interviews with nearly 4,800 sample members broken down into three groups: (1) a sample of recipients of extended income-maintenance benefits (called Trade Readjustment

Allowances or TRAs); (2) a sample of TAA trainees, nearly all of whom were receiving TRA benefits; and (3) a comparison sample of UI exhaustees from manufacturing jobs. Further disaggregation occurs for programme services received in 1987-88 and 1988-89. (Remember that in 1988 legislation was passed making retraining an entitlement for eligible workers and requiring retraining as a condition for receiving TRA benefits.) Survey respondents in all three samples tend to be predominantly white and married, in their low 40s, and high school graduates. Roughly 40 percent of each sample is female.

TAA trainees were typically enrolled in programmes intended to develop specific job skills in occupations different from the occupations of their pre-displacement jobs. Most of these programmes were supplied by either a vocational training centre or a local community college, and the mean length of training exceeded one year for both the pre-88 and post-88 TAA trainee samples. A majority of TAA trainees failed to begin training until after they had exhausted their 26-week UI entitlement period. Thus many TAA trainees chose to enter training only after they were jobless for a substantial period of time, suggesting that entrance into a retraining programme became an option only after trainees recognized that finding a job in their old sector was not feasible. A $12,000 voucher allowed trainees to choose their own training programme with the assistance of Employment Service staff. While over half of TAA trainees had been machine operators in their pre-layoff jobs, fewer than five percent pursued training in that occupation. The occupations most frequently selected by trainees were technical, mechanical/repair, managerial/professional, and administrative support.

Corson et al. (1993: Chs. IV and VI) compare mean quarterly earnings for TRA recipients, TAA trainees, and UI exhaustees over 12 quarters beginning with the initial UI claim. Focusing on the post-88 samples, the members of all three groups start off with negligible earnings because employment rates are very low. The largest differences between the TRA recipient and UI exhaustee samples appear in the third and fourth quarters, when most of the UI exhaustees were no longer eligible to receive UI benefits but most TRA recipients were still receiving TRA extended benefits. After the fourth quarter, earnings of TRA recipients began to catch up with those of UI exhaustees, and by the ninth quarter TRA recipients were earning slightly more on average than UI exhaustees. Differences favouring TRA recipients continue to increase reaching a level of about $500 in quarter 12. This difference is not, however, statistically significant.

Figure 1. Mean quarterly earnings for the TAA trainee and TRA recipient Post-88 Samples of the evaluation, for 12 quarters



Source: Corson, Decker, Gleason and Nicholson (1993: Figure VI.2).

* indicates a significant difference at the five percent level

Corson et al. (1993) suggest that the appropriate comparison group for TAA trainees is TRA recipients rather than UI exhaustees. As shown in Figure 1, mean earnings of TAA trainees fall below those of TRA recipients in the third to sixth quarters as would be expected

since trainees were more likely to participate in long-term training which would keep them out of the labour force longer. Thereafter, however, trainees' earnings rise faster than those of TRA recipients, so that by the twelfth quarter a statistically significant difference favouring trainees of about $500 is found. This result is noteworthy because TAA trainees are more likely to have switched industry or occupation in their new job, and industry- and occupation-switchers in general suffer greater earnings losses than comparable stayers. Thus, TAA training appears to have had a positive effect in causing the earnings of industry- and occupation-switchers to converge to the level of earnings of displaced workers less likely to have been obliged to make such a switch.

E. The National JTPA Study

Although it applies to the economically disadvantaged rather than displaced workers, useful additional evidence on the effectiveness of classroom versus on-the-job training is available in a random-assignment study of the impact of programmes funded by Title II-A of JTPA. The National JTPA Study was commissioned by the USDOL in 1986.

Using data for over 17,000 JTPA applicants scattered across 16 locally administered sites, the evaluation report by Bloom et al. (1992) provides net impact estimates for four target groups--adult women and men (aged 22 and older) and female and male out-of-school youths (aged 16 to 21). Sample members are assigned randomly to either a treatment group or a control group.[12] But before random assignment, individuals were classified into three service strategy subgroups based on the services recommended by programme intake staff. The CT subgroup was recommended to receive classroom training in occupational skills and basic education.[13] Members of the OJT/JSA subgroup were recommended for on-the-job training or job search assistance, or both (treatment group members recommended for OJT were typically enrolled in JSA while searching for an OJT position or an unsubsidized job). Finally, members of the other services subgroup were recommended for services including JSA, basic education, and work experience--but not classroom training in occupational skills or OJT.

Bloom et al. (1992) point out that adult treatment group members in both the classroom training and OJT/JSA service subgroups were much more likely than control group members to have received the recommended service.[14] Over an 18-month period following random assignment, estimated effects on earnings of JTPA services are shown for adults in Table 4. For women, the CT results followed the expected pattern; that is, earnings losses in the first quarter or two, representing initial investment of time in training, followed by earnings gains increasing in size over the remaining quarters. The positive effects measured for the last two quarters are statistically significant. For men, on the other hand, none of the estimated effects is significantly different from zero. Note that these estimates are obtained for sample members assigned to the service subgroup, not for those who actually enrolled in a CT programme.

The OJT/JSA treatment has a more immediate and sustained positive impact on the earnings of both adult women and men than did classroom training. This would be expected for a service strategy that emphasizes immediate placement in either an OJT slot or an unsubsidized job. Women in the OJT/JSA subgroup enjoyed positive and statistically significant earnings impacts of from $109 to $144 per quarter in five of the six quarters. Estimates for men are of similar magnitude in all but the first quarter, although estimated impacts are less often statistically significant. Bloom et al. (1992) suggest that these earnings gains under JTPA are due primarily to increases in hours worked, rather than to higher hourly earnings while employed. The authors also mention that programme staff tended to recommend the most job-ready applicants for the OJT/JSA service strategy.

III. Private sector retraining programmes

Carnevale and Gainer (1989) estimate that U.S. employers spend about $30 billion annually, or about 1 percent of payroll costs, on the direct costs of formal training courses. Nevertheless, most companies spend nothing at all on formal training, and those that do concentrate on managers, technicians, and professionals, not front-line employees. Conte (1991) suggests that fully 89 percent of American workers never receive any formal training from their employers. Other than in the building trades, there is not an extensive apprentice training system as exists in Germany to supply highly skilled workers and to ease the school-to-work transition of noncollege-bound youth. Nor among American companies is there the long-standing commitment of Japanese employers to design work experience and training opportunities that continue throughout a worker's career.

While the evidence is fragmentary, there are clear indications that after years of neglect American firms are facing up to the challenge posed by changes in technology which raise the skill requirements of jobs relative to the skills possessed by many workers. The joint labour-management training programmes fashioned in a number of industries are probably the most comprehensive of private sector training programmes in the U.S. One of the most ambitious and long-running of these programmes is the United Auto Workers-Ford Motor Co. Education, Development and Training Programme (EDTP) negotiated as part of the 1982 UAW-Ford collective bargaining agreement.[15] Subsequent agreements have resulted in substantial expansion of programme services and growth in the number of UAW members served. EDTP's initial budget was approximately $10 million a year (generated by a five-cents-an-hour contribution by Ford), and Miller (1992) estimates that Ford is currently spending $50 to $60 million annually on EDTP programmes.

While EDTP has national programme guidelines, each plant establishes its own joint labour-management EDTP committee to design and implement local programme applications. Table 5 provides an overview of current EDTP programmes categorized by whether they are generally available to all active workers or specifically targeted to laid-off workers. An active Ford employee who is interested in upgrading his or her skills can attend an Education Fair at the work site to learn about local EDTP programmes. At these fairs, workers may interact with a Life/Education Advisor who is available at every plant to offer an assessment of the individual's strengths and interests and to recommend appropriate programme services. Workers seeking to improve their basic mathematics or reading skills, obtain a high school diploma or prepare for the GED examination, or improve their knowledge of the English language (for non-English speaking workers) can enroll in the Skills Enhancement Program (SEP). Each plant has a learning centre where a SEP instructor is available to provide assistance at a time convenient to the worker.[16] Post-secondary educational courses are subsidized through the Education and Training Assistance Plan (ETAP). The ETAP programme also brings classes on-site at the plant or local union hall through the College and University Options Program.

Laid-off workers have access to the same assessment/counseling services, basic education through the SEP programme, and post-secondary formal education courses through the National Vocational Retraining Assistance Plan and Targeted Vocational Retraining Projects. In addition, workers seeking employment outside Ford may receive pre- and post-layoff JSA services through the Pre-Layoff Counseling and Job Search Skills Training programmes, respectively. These services are located physically in Regional Career Ser-

vices/Reemployment Assistance Centers. Workers transferring to another Ford facility are eligible for relocation assistance seminars and loans.

Another noteworthy joint labour-management programme is the Quality Through Training Program (QTTP) established by the Boeing Co. and the International Association of Machinists (IAM) as part of their 1989 collective bargaining agreement. Like the UAW-Ford EDTP programme, QTTP offers a diverse range of opportunities for training, retraining, and personal growth. QTTP is likewise funded by Boeing on a cents-per-hour basis. An important difference between the two programmes is the focus of QTTP on employees whose employment opportunities are adversely affected by technological change leading to job combinations, redeployment, and layoffs. To meet the retraining needs of these workers, QTTP services are organized into four programmatic areas, of which Laid-Off/Redeployed Employees and Career and Personal Growth are by far the most important in terms of budgeted expenditures.[17]

In the first of these areas, IAM-represented employees who have received a layoff notice are provided with two paid hours of orientation at a Boeing Outplacement Center on how to find another job either within or outside the company. The orientation sessions are designed to familiarize employees with the wide variety of services available at outplacement centres. These services include facilities for preparing and distributing resumes, telephones, resource rooms with directories of area and regional employers as well as newspapers and other job-search materials, and videotaping equipment for recording mock job interviews. Employees may also participate in workshops on such topics as identifying marketable skills, preparing resumes, conducting effective job searches, and mastering interviewing techniques.

QTTP services available in the Career and Personal Growth area are broken down into three separate programmes. Education Assistance provides active and laid-off workers with up to $2,000 and $2,500, respectively, for tuition and other expenses at approved educational and vocational institutions. The Horizons programme offers assessment, referral, and advising services to help employees define and meet career goals. Finally, English as a Second Language provides paid time off for employees with language limitations to improve their English skills.

Other than joint labour-management training programmes, scattered evidence of a largely anecdotal nature indicates that U.S. firms are increasingly supplying their workforces with two broad categories of training. The first is on-site schooling providing basic skills in reading and mathematics and high school equivalency courses. Anthony Carnevale, chief economist of the American Society of Training and Development, was recently quoted as estimating that private sector companies spent $300 million on basic education in 1991, up from almost nothing ten years earlier (see Cooper 1992). In the second type of training programme, companies are enlisting the aid of local community colleges, vocational/technical institutes, and even some four-year colleges in developing courses customized to meet the skill requirements of the firm and often delivered on-site.

IV. Lessons from U.S. experience

Compared to many European nations, government-sponsored employment and training programmes in the U.S. can fairly be described as fragmented and underfunded. The first displaced worker programmes were begun in 1962. Since then government funding has fluctuated dramatically as alternative programmes have been developed and then allowed to die. The one feature that sets the U.S. apart from other industrialized nations is its commitment to programme evaluation. This paper reviewed the evaluation evidence available for five government-sponsored programmes targeted to displaced workers and one programme for disadvantaged workers that distinguishes the impact of classroom training from that of OJT. These evaluations make use of either a comparison or a control group to mimic what labour market outcomes would have been for the treatment group in the programme's absence.

In addition to programme evaluation evidence, descriptions of particular private sector retraining programmes in the U.S are also discussed. Private sector employers are clearly starting to make more substantial investments in training programmes. These programmes are primarily directed to workers who are employed but at risk of being displaced from their jobs unless their technical skills are upgraded or basic educational deficiencies are removed. But some employers also provide outplacement services to laid-off workers.

Several lessons can be learned from the U.S. experience with displaced worker retraining programmes.

- Evidence provided by the displaced worker demonstration projects indicates unambiguously that job search assistance speeds up the reemployment of displaced workers. It appears that many displaced individuals possess sufficient marketable skills that they can find new jobs with some assistance. JSA allows for quick intervention before workers disperse after layoffs and plant closings; and, given their modest cost per worker, the evidence suggests that JSA services are cost effective.
- Results from the displaced worker demonstrations are less favourable for classroom training in vocational skills. Only the follow-up study of New Jersey UI demonstration focusing specifically on individuals who actually received classroom training services (as distinct from the random sample of all eligible individuals offered CT) yields evidence of a positive incremental effect of CT above that of JSA-only services. It is worth noting that the relatively short-term, low-cost training provided in New Jersey was designed to upgrade workers' existing skills rather than to furnish training in a new occupation.
- Nevertheless, results from the TAA evaluation suggest that longer-term investments in classroom training may be effective in allowing the earnings of TAA trainees - most of whom changed occupation or industry to obtain reemployment - to converge to the earnings of a comparison group of displaced workers who were more likely to have been industry and occupations stayers. (Displaced workers reemployed in the same occupation and industry typically suffer less of an earnings loss than occupation and industry switchers). Reasonably favourable results for classroom training are also obtained for adult female (but not adult male) disadvantaged workers in the random assignment JTPA Title II-A evaluation. It seems prudent to conclude from this mixed evidence that as a part of a menu of adjustment assistance services, the role of classroom training should be limited to carefully selected workers who can be offered training curricula tailored to their backgrounds and to the needs of local employers. Cer-

tainly an important lesson from the displaced worker demonstrations is the difficulty of developing classroom training programmes at short notice that supply participants with marketable skills upon programme completion.

- Although the Buffalo displaced worker project failed to indicate a positive earnings effect for on-the-job training, results from the New Jersey programme for treatment group members who actually received OJT are highly favourable, indicating incremental effects on earnings of as much as $3,000 per quarter relative to earnings of the JSA-only treatment group. A note of caution regarding this very positive result is that it is based on a small number of OJT recipients who are undoubtedly highly self-selected. Nevertheless, the OJT treatment is also found in the National JTPA Study to have a more immediate and sustained positive impact on the earnings of both adult women and men than classroom training.
- In those demonstration projects that distinguish programme impacts for men and women, women are usually found to benefit from retraining and other reemployment services to at least the same extent as men.
- Basic education is not included in the service mix supplied to participants in the displaced worker demonstrations. However, basic education is a key service generally made available to current employees in private sector training programmes. Anecdotal evidence available for these programmes indicates a positive effect of basic education on both workers' productivity and their own morale. Employer expenditures on basic education appear to be rising rapidly.

Notes

[1] These estimates are calculated by Ross and Smith (1993) using the 1984, 1986, 1988, 1990, and 1992 Displaced Worker Survey supplements to the Consumer Population Survey.

[2] Economically disadvantaged refers to individuals who receive (or are members of families that receive) cash welfare payments or to members of a family whose total family income falls below the poverty line.

[3] In addition to easing TAA eligibility criteria, the Trade Act of 1974 allowed qualifying workers to receive income-maintenance benefits on top of UI benefits up to a maximum of 70 percent of previous earnings, for up to 52 weeks. Legislation passed in 1981 restricted the level of cash benefits to the level of UI benefits, and stipulated that TAA payments could begin only after UI benefits were exhausted.

[4] The other major titles of JTPA are Title II-A which funds employment and training services to economically disadvantaged adults and youth and the Title II-B summer youth programme.

[5] This recommendation is based on the task force's favourable assessment of the Canadian Industrial Adjustment Service (IAS) programme. Established in 1963, the IAS is a federally-funded agency intended to serve as a catalyst in bringing together local labour and management officials to locate job opportunities for workers about to be laid off (advance notice of plant closings and layoffs is required by law). Its basic job development strategy is to uncover job openings that may never be publicly announced and to make it easier for prospective employers to consider displaced workers by assisting in the screening process.

[6] A third major piece of legislation passed in 1988 is the Worker Adjustment and Retraining Notification (WARN) act requiring firms employing 100 or more workers to give 60 days' notice of a plant closing. In the case of a layoff, the bill requires the 60 days' notice if the layoff involves 50 or more workers representing at least one-third of the workforce at a place of employment.

[7] The Buffalo programme is one of six dislocated worker demonstration projects scattered across the nation that received USDOL funding. Due to cost considerations, it was decided that the impact analysis should be limited to one site. The Buffalo project was chosen as that site because of its size, a comprehensive mix of services, and the random selection of workers recruited for the programme from six "target" plants.

[8] More detail is found in Leigh (1990: Ch. 3).

[9] In addition to assessing the effectiveness of alternative packages of reemployment services, the second major objective of the New Jersey project was to examine whether it is possible to use the UI system to identify early in the claim period unemployed workers who are likely to face prolonged spells of unemployment and exhaust UI benefits. The approach used by New Jersey programme designers to distinguish the displaced from other UI claimants was to apply five screens during the fourth week of claiming benefits, the cumulative effect of which are the restrictions stated in the text.

[10] Nevertheless, selection bias is a real possibility for the target-plant sample because recruited workers from the target plants who opted not to participate in the programme were placed in the comparison group. Even after controlling for differences between the measured characteristics of treatment and comparison group members, it is likely that differences in unobserved characteristics (e.g., motivation to find employment) remain. If such unobserved characteristics are related to workers' earnings, estimated programme effects will be biased. A low programme participation rate of 16 percent suggests that the potential for a self-selection bias is substantial. See Corson, Long, and Maynard (1985: 98-104) for their discussion of the problem and proposed solutions.

[11] The reemployment bonus is directed at the problem that the reemployment of displaced workers may be delayed, not by inadequate job search skills, but by a lack of motivation to engage in search or by the natural reluctance to accept a new job offering considerably lower wages and benefits than the pre-layoff job.

[12] Hotz (1992) argues that the National JTPA Study does not produce net impact estimates that are valid for the entire JTPA system because the 16 sites studied (out of over 600 sites nationally) are not representative of the system as a whole. The problem is that many sites made the decision not to participate in the Study because of concern that assignment of applicants to control groups would harm their ability to meet recruitment goals and performance standards, and the ethics of denying services to members of the control groups during the follow-up period. Thus, estimates obtained are valid only for the sites that volunteered to participate in the Study.

[13] Basic education includes Adult Basic Education providing basic communications and mathematics training, high school or General Educational Development (GED) preparation, and English as a Second Language.

[14] For the CT subgroup, 49 percent of the adult women treatment group received classroom training in occupational skills as compared to 29 percent of the control group. These rates were 40 percent versus 24 percent among adult men. For the treatment group in the OJT/JSA subgroup, 29 percent of women and 27 percent of men received OJT compared to less than one percent of the corresponding control groups.

[15] This discussion of the EDTP programme is largely based on materials kindly supplied by Bill Stevenson of the UAW and K. K. Dickinson of Ford.

[16] In cooperation with the UAW, both General Motors and Chrysler have followed Ford in establishing formal literacy programmes. Begun in 1990, GM's Employee Excellence Development programme provides classrooms in 30 of its facilities across the country, and plans to have them in all 150 facilities by the end of 1992. Miller (1992) notes that, unlike Ford, GM pays workers for taking literacy training during normal working hours. Chrysler's Technical Preparation Program was established in 1987 and offers basic education in classrooms at 22 of its facilities.

[17] The other two programmatic areas are Technology Change and Job Combinations. Technology Change offers a basic industrial skills course to familiarize employees with a wider variety of skills required on the shop floor. In Job Combinations, once the decision has been made to combine similar jobs under a single new job title, QTTP staff pull together information gathered from the individuals in these jobs and supervisors to determine the training requirements of the new job classification.

Table 1 Characteristics of Major US Displaced Worker Demonstration Projects

Project	Time period	Method for distinguishing the displaced	Worker characteristics	Reemployment services delivered
Downriver	July 1980-Sept. 1981 and Nov. 1981-Sept. 1983	Workers laid off from particular auto and auto parts plants	Experienced male production workers earning high pre-layoff wages	JSA followed, where necessary, by CT
Buffalo	Oct. 1982-Sept. 1983	Workers laid off from selected steel and auto plants	Experienced male production workers earning high pre-layoff wages	JSA followed, where necessary, by CT or OJT
Texas WAD: Houston	1983-85	Workers eligible for JTPA Title III	Adult male professional workers earning high wages laid off from petrochemical plants	JSA-only (Tier I) or JSA followed by CT (Tier +/++
El Paso			Adult Hispanic males and females earning low wages laid off from light mfg- plants	JSA followed by CT (Tier I/II)
New Jersey	July 1986-fall 1987	UI claimants with 3+ years of pre-layoff job tenure	Adult males and females laid off from jobs in mfg., trade, and services	(1) JSA-only, JSA followed by CT or OJT, or (3) JSA followed by reemployment bonus

Table 2 Estimated Programme Net Impacts and Costs for the Major US Displaced Worker Demonstration Projects

Demonstration project	Net impact: Earnings[a]		Net impact: UI benefits[b]		Cost[c]		Evaluation Method
Downriver	-$19 to 122***				Levels not available. Cost of training more than twice that of JSA		Treatment and comparison groups randomly drawn from different plants
Buffalo[d]	JSA:	$134***			JSA:	$851	Treatment and comparison groups randomly drawn from different plants
	JSA/CT:	122			JSA/CT:	3,282	
	JSA/OJT:	64			JSA/OJT:	3,170	
Texas WAD: Houston		$547		-$204	Tier I:	$1,460-2,072	Random assignment of eligible workers to treatment and control groups.
					Tier I/II:	2,981-3,381	
EL Paso	Men:	$770	Men:	-$194	Tier I:	$1,460-2072	
	Women:	1,148**	Women:	- 227**	Tier I/II:	725-1,099	
New Jersey UI	JSA:	$263***	JSA:	-$ 87*	CT:	$2,723	Random assignment of eligible workers to treatment and control groups.
	JSA/train.:	103	JSA/train.:	- 81	OJT:	1,960	
	JSA/bonus:	278***	JSA/bonus:	-170***			

Sources: Downriver: Kulik, Smith, and Stromsdorfer (1984: Tables 3.4 and 3.6); Buffalo: Corson, Long, and Maynard (1985: Table IV.4); Texas WAD: Bloom (1990: Table 8.2); and New Jersey: Corson et al. (1989: Tables 2, 3, and VII.1).

[a]Measured weekly for Downriver and Buffalo, annually for Texas WAD, and quarterly for New Jersey UI. New Jersey estimates are measured for the second quarter after initial UI claim.

[b]Measured over 30 weeks for Texas WAD and over the benefit year for New Jersey.

[c]Cost estimates are per worker who received services.

[d]Target plant net impact estimates.

***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

Table 3 Estimated Incremental Effects of Classroom Training and OJT on the Quarterly Earnings of Training Recipients In the New Jersey UI Reemployment Demonstration[a]

Quarter	Classroom training	OJT
1	-$458***	$1,469***
2	- 635***	2,347***
3	- 314	2,632***
4	195	2,995***
5	384	3,174***
6	191	2,480***
7	323	2,652***
8	505***	2,681***
9	409*	2,932***
10	582***	3,005***

Source: Anderson, Corson, and Decker (1991: Table III.4).

[a] Estimates are relative to those for claimants who received JSA-only services.
***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

Table 4 Estimated Impact of JTPA Title II-A Programmes on Quarterly and 18-Month Earnings, by Gender and Service Strategy

Service strategy and time period	Adult women	Adult Men
Classroom training		
Quarter 1	-$ 70*	-$101
Quarter 2	5	126
Quarter 3	52	213
Quarter 4	79	50
Quarter 5	144***	151
Quarter 6	188***	-21
All Quarters	398	418
OJT/JSA		
Quarter 1	$144***	$ 54
Quarter 2	81	135
Quarter 3	129***	164*
Quarter 4	109*	94
Quarter 5	142***	133
Quarter 6	138***	201***
All Quarters	742***	781*

Source: Bloom et al. (1992: Exhibit S.6).
***, **, and * indicate significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

Table 5 Selected UAW-Ford EDTP Programmes for Active and Laid-Off Workers

Programme	Description
Active workers	
Education Fairs	Supplies information about EDTP services.
Life/Education Planning	Provides assessment of personal strengths and interests and counselling on appropriate EDTP programmes.
Skills Enhancement	Provides basic education; prepares workers for GED exam or helps them to complete requirements for high school diploma. Training is self-paced and generally available on-site.
Education and Training Assistance Plan (ETAP)	Provides prepaid tuition and fees (up to $2,550 per year) for courses leading to a degree at an approved educational institution. Financial assistance of up to $1,800 available for non-degree courses.
Targeted Education, Training or Counselling Projects	Funds pilot projects that appear to be responsive to the needs of workers at a local plant.
College and University Options	Facilities use of ETAP in making college courses available on-site
Successful Retirement Planning	16-hour workshop to help workers plan the transition to retirement.
Laid-off Workers	
Career Day Conferences	Supplies information about EDTP services
Career Counselling and Guidance	Assists workers to develop personal and career goals.
Pre-Layoff Counselling	Provides pre-layoff counselling to workers in the event of an indefinite layoff without the prospect of recall or future Ford placement
Job Search Skills Training	Provides self-directed job search skills, labour market information, interviewing skills, and professional job search assistance.
National Vocational Retraining Assistance Plan	Provides prepaid tuition and fees (up to $6,000) for courses at approved educational institutions.
Targeted Vocational Retraining Projects	Provides prepaid technical skills training in high-demand occupations identified as having job opportunities.
Relocation Assistance Seminars	Provides information on housing, medical care, and schools to workers transferring to another Ford facility.
Relocation Assistance Loans	Provides financial assistance to workers transferring to another Ford facility in a different labour market area.

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